

REMARKS/ARGUMENTS

Claims 1-21, and 23 - 24 were pending, all of which were rejected. Applicant respectfully requests reconsideration.

Claim Rejections – 35 U.S.C. §102

Claims 1-6, 8-21 and 23-24 were rejected under 35 U.S.C. §102(b) as being anticipated by Fujiki et al. (US 6,677,682) (“Fujiki”). Applicant respectfully traverses.

Independent claim 1 recites “a first mark portion associated with a first layer and a second mark portion associated with a second layer, wherein each mark portion comprises a two dimensional generally orthogonal array of individual test structures....” Independent claims 17 and 18 both recite “laying down a first mark portion in association with a first layer”, “laying down a second mark portion in association with a second layer; wherein each mark portion comprises a single two dimensional generally orthogonal array of generally evenly spaced individual test structures”. Thus, independent claims 1, 17 and 18 require mark portions on both a first layer and a second layer, where each mark portion comprises a two dimensional generally orthogonal array of individual test structures.

Fujiki, on the other hand, does not disclose a second layer with “a two dimensional generally orthogonal array of individual test structures”. Fujiki only discloses a single layer (interlayer insulating film 2) with a hole 2M, which may be filled with various arrangements of trenches 2M2 or columnar holes 2M3, as illustrated in Figs. 12-13 and Figs. 14-15, respectively.

The Examiner cited Fujiki as disclosing an alignment mark and specifically cites to Figs. 1-21, but included illustrations of Figs. 12-13 and Figs. 14-15. Fujiki generally discloses a hole 2M on a first layer (interlayer insulating film 2) of a semiconductor device that serves as an alignment mark. Figs. 12 and 13 illustrate “the hole 2M for a mark comprises a plurality of (four) trench-shaped holes 2M2” within the layer 2 (col. 16, lines 20-27), while Figs. 14 and 15 illustrate “the hole 2M for a mark may be constituted by a plurality of (4x4) columnar holes 2M3 for a mark” within the layer 2 (col. 17, lines 53-59).

Fujiki is clear that Figs. 12-13 and Figs. 14-15 all illustrates variations in the hole 2M in the same layer 2. For example, with respect to Figs. 12 and 13, Fujiki states “a trench-shaped hole 2M2 for a mark may be formed in a direction orthogonal to that in FIG. 12 as in a semiconductor device 106B shown in a transverse sectional view of FIG. 13”. Col. 17, lines

45-52. In other words, Figs. 12 and 13 illustrate the same layer on the semiconductor device (i.e., interlayer insulating film 2), but show that the trench-shaped hole 2M2 may be oriented in different directions.

Similarly, with respect to Figs. 14 and 15, Fujiki states “each hole 2M3 for a mark may have a different array from an array in the semiconductor device 106C in FIG. 14 as in a semiconductor device 106D shown in a transverse sectional view of FIG. 15.” Col. 17, line 65 - col. 18, line 1. Thus, Figs. 14 and 15 of Fujiki again illustrate the same layer on the semiconductor device (i.e., interlayer insulating film 2), but show that the array of columnar holes 2M3 may have different arrangements.

With respect to a second layer, Fujiki only discloses that a “metal layer 3M2 is formed to cover the hole 2M for a mark.” Col. 16, lines 31-32 (referring to Fig. 11, which is a longitudinal sectional view of Fig. 12). Thus, Fujiki explicitly discloses that the second layer has a “metal layer”, which is very different than “a two dimensional generally orthogonal array of individual test structures”. The Examiner fails to cite to where Fujiki discloses a second layer with a mark portion with “a two dimensional generally orthogonal array of individual test structures” as required by claims 1, 17, and 18. Moreover, Applicant’s attorney can find no such disclosure in Fujiki.

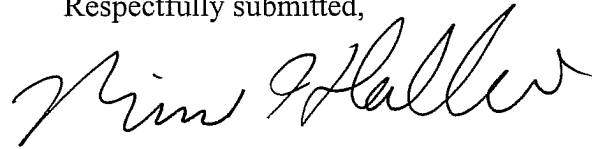
Thus, Applicants respectfully submit that independent claims 1, 17, and 18 are patentable over Fujiki. Reconsideration and withdrawal of this rejection is respectfully requested. Claims 2-6 and 8-16 depend from claim 1, claims 19- and 23-24 depend from claim 18 and claims 20-21 depend from claim 17. Therefore claims 2-6, 8-16, 19-21, and 23-24 are patentable for at least the same reasons as the claims from which they depend.

Claim Rejections – 35 U.S.C. §103

Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fujiki. However, claim 7 depends from claim 1 and is, therefore, likewise patentable for at least the same reasons. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1-21 and 23 and 24 remain pending. For the above reasons, Applicants respectfully request allowance of all pending claims. Should the Examiner have any questions concerning this response, the Examiner is invited to call the undersigned at (408) 378-7777 ext 112.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jim Halbert", written in a cursive style.

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